



## Corporate Intellectual Property Fax Cover Sheet

Date: Nov. 21, 2005 Time:   AM   PM  
(circle one)

Number of pages (including cover sheet): 33

To: Patricia Booker

Phone: ( )  

Location:  

Fax: (703) 746-6695

cc:

From: Thomas Savitsky

Phone: (862)  

Fax: (973) 781-8064

Re: TX|4-32366A SN. 10|507, D60

### MESSAGE:

Re: As Requested, Enclosed is a copy  
of the response submitted on June 13, 1995.

#### CONFIDENTIALITY NOTICE

THIS FAX CONTAINS CONFIDENTIAL INFORMATION WHICH MAY BE PRIVILEGED AND IS INTENDED SOLELY FOR THE USE OF THE ABOVE-NAMED RECIPIENT(S). IT MAY BE EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. IF YOU ARE NOT AN INTENDED RECIPIENT OR PERSON RESPONSIBLE FOR DELIVERY OF THIS FAX TO AN INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT YOU HAVE RECEIVED THIS FAX IN ERROR AND THAT ANY REVIEW, DISSEMINATION, DISCLOSURE, COPYING OR OTHER USE OF THIS FAX OR ITS CONTENTS IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS FAX IN ERROR, PLEASE NOTIFY THE SENDER IMMEDIATELY BY TELEPHONE AT ONE OF THE PHONE NUMBERS SET FORTH ABOVE AND DESTROY THIS FAX IMMEDIATELY.

CASE TX/4-32366A

FILING BY "EXPRESS MAIL" UNDER 37 CFR 1.10EV524615532US

Express Mail Label Number

June 13, 2005

Date of Deposit

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

## IN RE PCT NATIONAL STAGE APPLICATION OF

BAENTELI ET AL.

INTERNATIONAL APPLICATION NO: PCT/EP03/02710

FILED: 14 MARCH 2003

U.S. APPLICATION NO: 10/507,060

35 USC §371 DATE: Herewith

FOR: 2,4-DIAMINOPYRIMIDINE DERIVATIVES

MS: PCT

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

RESPONSE TO NOTICE TO FILE MISSING PARTS

Sir:

The Notice to File Missing Parts of Application mailed March 3, 2005 (a copy of which is enclosed) has a shortened statutory time set to expire on May 3, 2005.

A two-month extension is hereby requested pursuant to 37 CFR §1.136(a). Please charge Deposit Account No. 19-0134 in the name of Novartis in the amount of \$450 for payment of the extension fee.

In response, applicants now submit an original or copy of a fully executed Declaration and Power of Attorney. Please charge the \$130 surcharge fee under 37 CFR §1.16(e) to Deposit Account No. 19-0134 in the name of Novartis.

Also enclosed is a nucleotide and/or amino acid sequence submission, including a computer readable copy, a paper copy and a Statement Verifying Identity of Above Copies.

The Commissioner is hereby authorized to charge any additional fees under 37 CFR §1.17 which may be required, or credit any overpayment, to Account No. 19-0134 in the name of Novartis.

A duplicate copy of this letter is provided for charging purposes.

Respectfully submitted,

Novartis  
Corporate Intellectual Property  
One Health Plaza, Building 104  
East Hanover, NJ 07936-1080  
(862) 778-7909  
Date: June 13, 2005

*Thomas R. Savitsky*  
Thomas R. Savitsky  
Attorney for Applicants  
Reg. No. 31,661



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/507,060	Rolf Baenteli	TX/4-32366A
		INTERNATIONAL APPLICATION NO.
		PCT/EP03/02710
001095 NOVARTIS CORPORATE INTELLECTUAL PROPERTY ONE HEALTH PLAZA 104/3 EAST HANOVER, NJ 07936-1080	I-A. FILING DATE	PRIORITY DATE
	03/14/2003	03/15/2002
<i>TR</i> <b>CONFIRMATION NO. 8326</b> <b>371 FORMALITIES LETTER</b>  *OC000000015340970*		

Date Mailed: 03/03/2005

### NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495).

- Copy of the International Application filed on 09/09/2004
- Copy of the International Search Report filed on 09/09/2004
- Copy of IPE Report filed on 09/09/2004
- Copy of Annexes to the IPER filed on 09/09/2004
- Preliminary Amendments filed on 09/09/2004
- Information Disclosure Statements filed on 09/09/2004
- Biochemical Sequence Disketta filed on 09/09/2004
- Oath or Declaration filed on 09/09/2004
- Biochemical Sequence Listing filed on 09/09/2004
- Copy of references cited in ISR filed on 09/09/2004
- U.S. Basic National Fees filed on 09/09/2004
- Priority Documents filed on 09/09/2004
- Power of Attorney filed on 09/09/2004



The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the International application number and International filing date. The current oath or declaration does not comply with 37 CFR 1.497(a) and (b) in that it:
  - is not executed in accordance with either 37 CFR 1.66 or 37 CFR 1.68.
- \$130 Surcharge for providing the oath or declaration later than 30 months from the priority date (37 CFR 1.492(e)) is required.

**SEQUENCE LISTING REQUIRED**

DOCKETED FOR: May 3, 2005

**SUMMARY OF FEES DUE:**

Total additional fees required for this application is \$130 for a Large Entity:

- \$130 Late oath or declaration Surcharge.

The following items **MUST** be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
  - See Attachment(Raw Sequence Error Report)
- **APPLICANT MUST PROVIDE:**
  - An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification.
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
  - For Rules Interpretation, call (703) 308-4216
  - To Purchase PatentIn Software, call (703) 306-2600
  - For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

**ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTHS FROM THE DATE OF THIS NOTICE OR BY 32 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.**

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

PATRICIA A BOOKER

Telephone: (703) 308-9140 EXT 204

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PART 1 - ATTORNEY/APPLICANT COPY

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U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/507,060	PCT/EP03/02710	TX/4-32366A

FORM PCT/DO/EO/905 (371 Formalities Notice)



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/507,060  
Source: PC/10  
Date Processed by STIC: 9/23/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.  
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:  
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE  
APPLICANT, WITH A NOTICE TO COMPLY or,  
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A  
NOTICE TO COMPLY  
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT  
MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO PRODUCE UNERRONEOUS SEQUENCE LISTINGS, PLEASE USE THE **CHECKER**  
**VERSION 4.2 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND  
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22343-1450 (EFFECTIVE 06/05/04)
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04); U.S. Patent and Trademark Office, 220 20<sup>th</sup> Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04.

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## Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	SERIAL NUMBER: <u>10/507,060</u>
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE</b>		
1 <input type="checkbox"/> Wrapped Nucleic Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <input type="checkbox"/> Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 <input checked="" type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <input type="checkbox"/> Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s). Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (ii) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <input type="checkbox"/> Use of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <input type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input checked="" type="checkbox"/> Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid	

AMC - Biotechnology Systems Branch - 09/09/2003

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PC

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/507,060

DATE: 09/23/2004  
TIME: 11:58:50

Input Set : A:\PTO.FG.txt  
Output Set: N:\CRF4\09232004\J507060.raw

```

5 <110> APPLICANT: Baenteli, Rolf
6     Zenke, Gerhard
7     Cooke, Nigel Graham
8     Duthaler, Rudolf
9     Thoma Gebhard
10    Von Matt, Anette
11    Honda, Toshiyuki
12    Matsuura, Naoko
13    Nonomura, Kazuhiko
14    Ohmori, Osamu
15    Umemura, Ichiro
16    Hinterding, Klaus
17    Papageorgiou, Christos
21 <120> TITLE OF INVENTION: Pyrimidine derivatives
25 <130> FILE REFERENCE: 4-32366A
C--> 29 <140> CURRENT APPLICATION NUMBER: US/10/507,060
C--> 29 <141> CURRENT FILING DATE: 2004-09-09
29 <150> PRIOR APPLICATION NUMBER: GB 0206215.6
31 <151> PRIOR FILING DATE: 2002-03-15
35 <160> NUMBER OF SEQ ID NOS: 4
39 <170> SOFTWARE: PatentIn version 3.1
43 <210> SEQ ID NO: 1
45 <211> LENGTH: 15
47 <212> TYPE: PRT
49 <213> ORGANISM: Artificial sequence
53 <220> FEATURE:
55 <223> OTHER INFORMATION: LAT-11 is an artificial sequence for use in the ZAP-70 kinase

```

ass

```

56     ay
58 <220> FEATURE:
60 <221> NAME/KEY: MISC_FEATURE
62 <222> LOCATION: (1)..(1)
64 <223> OTHER INFORMATION: X=L(+)-biotinyl-aminohexanoyl
66 <400> SEQUENCE: 1
W--> 70 Xaa Glu Glu Gly Ala Pro Asp Tyr Glu Asn Leu Gln Gln Leu Asn
71 1          5          10          15
74 <210> SEQ ID NO: 2
76 <211> LENGTH: 12
78 <212> TYPE: PRT
80 <213> ORGANISM: Artificial sequence
84 <220> FEATURE:
86 <223> OTHER INFORMATION: Biot-Y397 is a sequence for use in FAK assay
88 <220> FEATURE:
90 <221> NAME/KEY: MISC_FEATURE

```

See item 4 on Error  
summary sheet  
Dose Not Comply  
Corrected Diskette Needed

grn 1-2

give source of genetic material  
(see item 11 or  
Error summary)

Xaa can only  
represent a single  
amino acid,  
nothing else.

give source

(see item  
on Error  
summary)

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/507,060

DATE: 09/23/2004  
TIME: 11:58:50

Input Set : A:\PTO.FG.txt  
Output Set: N:\CRF4\09232004\J507060.raw

92 <222> LOCATION: (1)..(1)  
94 <223> OTHER INFORMATION: Biotin  
98 <400> SEQUENCE: 2  
W--> 100 Xaa Ser Glu Thr Asp Asp Tyr Ala Glu Ile Ile Asp  
101 1 5 10  
104 <210> SEQ ID NO: 3  
106 <211> LENGTH: 21  
108 <212> TYPE: DNA  
110 <213> ORGANISM: Artificial sequence  
114 <220> FEATURE:  
116 <223> OTHER INFORMATION: PCR primer for preparing human FAK cDNA  
118 <400> SEQUENCE: 3  
119 atggcagctg cttacccgtga c 21  
122 <210> SEQ ID NO: 4  
124 <211> LENGTH: 21  
126 <212> TYPE: DNA  
128 <213> ORGANISM: Artificial sequence  
132 <220> FEATURE:  
134 <223> OTHER INFORMATION: PCR primer for preparing human FAK cDNA  
136 <400> SEQUENCE: 4  
137 tcagtgtggc ctctgtgtgc c 21

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NOV-21-2005 11:49

NOVARTIS INTELLECT PROP

973 781 8064 P.10

Page 3 of:

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/507,060

DATE: 09/23/2004  
TIME: 11:58:51

Input Set : A:\PTO.FG.txt  
Output Set: N:\CRF4\09232004\J507060.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1  
Seq#:2; Xaa Pos. 1

NOV-21-2005 11:49

NOVARTIS INTELLECT PROP

973 781 8064 P.11

Page 4

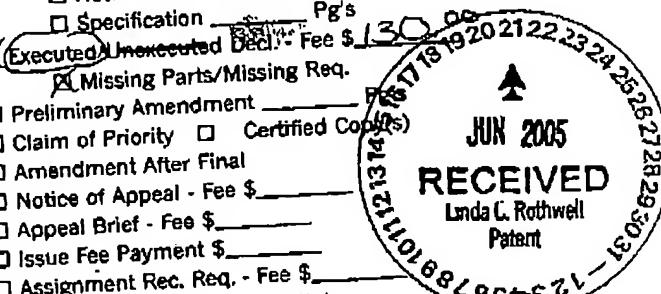
VERIFICATION SUMMARY  
PATENT APPLICATION: US/10/507,060

DATE: 09/23/2004  
TIME: 11:58:51

Input Set : A:\PTO.FG.txt  
Output Set: N:\CRF4\09232004\J507060.raw

L:29 M:270 C: Current Application Number differs, Replaced Current Application No  
L:29 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0

Case No. TX/4-32366A  
 Application No. 101507,060  
 Mailing Date: June 13, 2005  
 Due Date: 7/13/05  
 Express Mail No. EV524615532US  
 The Patent & Trademark Office acknowledges, and has stamped  
 hereon the date of receipt of the items checked below:  
 Amendment/Response/Letter - Fee \$ \_\_\_\_\_  
 Appn. Filing Papers - Fee \$ \_\_\_\_\_  
 PCT National Stage \_\_\_\_\_  
 Provisional Application \_\_\_\_\_  
 RCE  DIV  CONT  CIP \_\_\_\_\_  
 Specification 351 Pg's \_\_\_\_\_  
 (Executed) Unexecuted Decl. Fee \$ 130.00  
 Missing Parts/Missing Req. \_\_\_\_\_  
 Preliminary Amendment \_\_\_\_\_ Pg's \_\_\_\_\_  
 Claim of Priority  Certified Copy(s) \_\_\_\_\_  
 Amendment After Final \_\_\_\_\_  
 Notice of Appeal - Fee \$ \_\_\_\_\_  
 Appeal Brief - Fee \$ \_\_\_\_\_  
 Issue Fee Payment \$ \_\_\_\_\_  
 Assignment Rec. Req. - Fee \$ \_\_\_\_\_  
 Formal Drawings \_\_\_\_\_ Pg's \_\_\_\_\_  
 IDS 1 Pg's - ~~2~~ <sup>Supplemental</sup> Pg's + 18 References \_\_\_\_\_  
 PTO-1449 Form 2 Pg's <sup>00</sup> \_\_\_\_\_  
 Pet. for Ext. of Time - Fee \$ 250.  
 Application Data Sheet \_\_\_\_\_  
 Seq. Listings 2 Pg's/Seq. Disk + Statement of Verification \_\_\_\_\_



TKS  
JG03 Rec'd PCT/PTO 13 JUN 2005

2/99A Rev.1

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